

WHAT IS CLAIMED IS:

1. A color image forming apparatus, comprising:
  - an image processing part that is suitable for processing image data based on a calibration table;
- 5 a plurality of image forming parts that are suitable for forming an image using different colors from each other based on the image data outputted from the image processing part;
- 10 a conveying part that can convey at any one of a plurality of speeds a transfer material onto which the image formed by the plurality of image forming parts is transferred;
- 15 a fixing part that is suitable for subjecting the transfer material conveyed by the conveying part to fixing processing;
- 20 a first detecting part that is suitable for detecting a density of a patch formed by the plurality of image forming parts, the patch being unfixed;
- 25 a second detecting part that is suitable for detecting a chromaticity of the patch formed by the plurality of image forming parts, the patch being fixed; and
- a setting part is suitable for revising the calibration table of the image processing part based on a detection result of the first detecting part and a detection result of the second detecting part,

wherein the image processing part stores the calibration table corresponding to each of the plurality of speeds; and

wherein the setting part sets the calibration  
5 table corresponding to each of the plurality of speeds based on the detection result of the first detecting part and the detection result of the second detecting part.

10 2. A color image forming apparatus according to claim 1, wherein the first detecting part detects a density of a patch formed on the conveying part; and wherein the second detecting part detects a chromaticity of a patch formed on the transfer  
15 material conveyed by the conveying part.

3. A color image forming apparatus according to claim 1, wherein the setting part sets the calibration table corresponding to each of the plurality of speeds based on a detection result relating to the patch formed at each of the plurality of speeds.

4. A color image forming apparatus according to claim 1, wherein the first detecting part and the second detecting part set a plurality of calibration tables respectively corresponding to the plurality of

speeds based on a detection result relating to the patch formed at a predetermined speed of the plurality of speeds.

5        5. A color image forming apparatus according to claim 1, wherein the patch is automatically formed at a predetermined timing.

10        6. A color image forming apparatus according to claim 5, wherein the predetermined timing is determined based on any one of an image forming count value, a power ON state, environmental variation, and replacement of a consumable part.

15        7. A color image forming apparatus according to claim 1, wherein the plurality of image forming parts includes a plurality of chromatic-color image forming parts for forming a chromatic-color image and a single achromatic-color image forming part for forming an achromatic-color image; and

20        wherein, based on the detection result of the second detecting part, the setting part controls the chromaticity of the patch, which is formed by the plurality of chromatic-color image forming parts and exhibits gray by mixing colors, to be equal to a chromaticity of a patch formed by the single achromatic-color image forming part.

8. A control method for a color image forming apparatus that includes:

an image processing part that is suitable for processing image data based on a calibration table;

5 a plurality of image forming parts that are suitable for forming an image using different colors from each other based on the image data outputted from the image processing part;

10 a conveying part that can convey at any one of a plurality of speeds a transfer material onto which the image formed by the plurality of image forming parts is transferred; and

15 a fixing part that is suitable for subjecting the transfer material conveyed by the conveying part to fixing processing, the image processing part storing the calibration table corresponding to each of the plurality of speeds, the control method comprising:

20 a first detecting step of detecting by a first detecting part a density of a patch formed by the plurality of image forming parts, the patch being unfixed;

25 a second detecting step of detecting by a second detecting part a chromaticity of the patch formed by the plurality of image forming parts, the patch being fixed; and

a setting step of setting the calibration table

of the image processing part based on a detection result of the first detecting part and a detection result of the second detecting part,

wherein the setting step includes a step of

- 5 setting the calibration table corresponding to each of the plurality of speeds based on the detection result of the first detecting part and the detection result of the second detecting part.